Author index

Abbott,M.R. 575
Abboud-Abi Saab,M. 203
Al-Amoudi,O.A. 165
Albert,C. 119
Albrecht,D. 223
Alcaraz,M. 625
Amblard,C.A. 1201
Andreoli,C. 1067
Andreu,P. 185
Arai,M.N. 609

Balch,W.M. 575
Balls,H. 813,839
Bär-Gillissen,M.-J.B. 119
Barthel,K.-G. 1213
Bate,G.C. 49
Berberovic,R. 1109
Berdalet,E. 185
Berman,T. 119
Bernal,P.A. 599,1157
Bloem,J. 119
Bollens,S.M. 1047
Boni,L. 879
Booker,I. 813
Böttger-Schnack,R. 1089
Bourdier,G.G. 1201
Braconnot,J.-C. 665
Brander,K. 775
Brooks,A.S. 1169
Browman,H.I. 1075

Cappenberg,T.E. 119
Carpené,E. 879
Carré,C. 665
Chan,I.M. 609
Chrόst,R.J. 223
Collos,Y. 521
Cooper,A.B. 583
Corey,S. 419
Costello,J.H. 703
Cushing,D.H. 1

Daan,R. 263
Dalla Vecchia,F. 1067
Dalpadado,P. 133
Davey,M.C. 1169,1185
Davies,A.G. 141
Dearborn,J.H. 1315
Denman,K. 409
Dennett,M.R. 391
Dickson,D.M.J. 165
Dixon,G.K. 105
Donaghay,P. 1223

Eilertsen,H.C. 1245
Eppley,R.W. 575
Erga,S.R. 785
Evans,G.T. 415

Faganeli,J. 1129
Fanuko,N. 75
Ferrari,F.D. 1315
Flynn,K.J. 165
Foy,R.H. 605
French,F.,III 1223
Frost,B.W. 1047

Gačić,M. 1129
Galat,D.L. 925
Gasol,J.M. 887
George,D.G. 173
Gibson,C.E. 605
Goldman,J.C. 391
González,H. 599,1157
Gordin,H. 391
Goy,J. 665
Gradinger,R. 1213
Guerrero,R. 887

Hargreaves,P.M. 687
Haridas,P. 873
Havens,K.E.,III 1321
Heaney,S.I. 1169,1185
Herman,A.W. 243
Hessen,D.O. 649
Hewitt,J.E. 583
Hilmer,T. 49
Hilton,J. 65
Hirche,H.-J. 431
Holliday,D.V. 703
Holligan,P.M. 105
Holloway,G. 409
Holm-Hansen,O. 763
Hosie,G.W. 595
Hovekamp,S. 907
Hovenkamp,W. 487
Howard-Williams,C. 335
Hutchinson,D. 361

Ikeda,T. 133,619
Iñiguez,V. 625
Iriarte,J.L. 1157

Jaworski,G. 65
Jones,D.H. 445

Kannupandi,T. 633
Kattner,G. 85
Kawabata,K. 1261
King,D.L. 283
Kociolek,J.P. 375
Krajewska-Soltys,A. 1143
Krause,M. 85
Kremer,P. 535,553
Krishnan,T. 633
Kruse,S. 1075
Kudoh,S. 1001

Lakkis,S. 949
Lane,P. 1223
Langeland,A. 729
Laval,Ph. 665
Lenz,J. 1213
Lewis,W.M.,Jr 317
Locke,A. 419
Lynn,D.H. 193

Madhupratap,M. 873
Malej,A. 1129
Malt,S.J. 949
Manson,K. 813
Marrasé,C. 185,625
Mas,J. 887
May,L. 445
McClatchie,S. 361
Miller,R.J. 263
Mills,C.E. 665
Moen,V. 729
Montagnes,D.J.S. 193
Morand,P. 665
Moss,B. 813,839
Mourelatos,S. 1021
Münster,U. 223
Myklestad,S. 763

Nagasawa,S. 615
Navaluna,N.A. 15
Nordin,K. 361

O'Brien,W.J. 1075
Ohtsuka,S. 869
Onbé,T. 869
Overbeck,J. 223
Oviatt,C. 1223

Panampunnayil,S.U. 1307
Pantoja,S. 599,1157
Pedrós-Alió,C. 887
Perry,M.J. 15
Pieper,R.E. 703

Pinto-Coelho,R. 1109
Pourriot,R. 1021
Pridmore,R.D. 583
Priscu,J.C. 335

Rai,H. 223
Rascio,N. 1067
Rasmussen,J. 747
Reeve,M.R. 535,553
Reid,F.M.H. 575
Reti,M. 879
Richardson,K. 747
Riemann,B. 1037
Rigg,E. 65
Rijstenbil,J.W. 297
Ritz,D.A. 595
Robarts,R.D. 25
Rougier,C. 1021
Rudstam,L.G. 971

Sahlsten,E. 1117
Sancetta,C. 503
Schiewer,U. 353
Schnack,D. 1089
Schneider,G. 1213
Schoenberg,S.A. 1273
Schubert,H. 353
Sicko-Goad,L. 375
Simonsen,P. 1037
Sinke,J.J. 297
Sleep,J.A. 141
Smodlaka,N. 1129
Sörensson,F. 1117
Spencer,C.N. 283
Stensgaard,L. 1037
Stoermer,E.F. 375
Sundh,I. 463
Syms,M.A. 535

Taasen,J.P. 1245
Takahashi,M. 1001
Talarico,L. 1067
Talbot,M.C. 15
Thompson,A.B. 775,1297
Tranvik,L.J. 985
Tschirner,E. 353
Twombly,S. 317

Vaqué,D. 625
Vårum,K.M. 763
Verdin,J.P. 925
Vincent,W.F. 335
Volcani,B.E. 763

Weikert,H. 1089
Węsławski,J.M. 1245
Witek,Z. 1143
Witzel,P.K. 223
Wynne,D. 879

Young,J.W. 711

Zapata,M. 1103
Ziedane,R. 949
Zohary,T. 25

Subject index

Acanthodiaptomus denticornis,
lipids, during starvation/feeding 1201
Acartia hudsonica,
Copepoda, predator-induced vertical migration 1047
Adriatic Sea,
pelagic organic matter distribution, levels 1129
Adriatic Sea, Gulf of Trieste,
Silicoflagellata:*Distephanus speculum*, benthic anoxia, links 75
Aequorea victoria,
hydrozoan medusa, excretory pores 609
Algae,
identification, fluorescence spectra 65
Alkaline phosphatase,
activity, *Protogonyaulax tamarensis* 879
Amino acids,
excretion, diatom, *Chaetoceros affinis* 763
Ammonium,
metabolism, effect of salinity, diatom: *Skeletonema costatum* 297
photosynthetic response, *Skeletonema costatum* 141
Amphipoda,
spatial/temporal distribution, effects of surface currents, Canada, Bay of Fundy 419
Anabaena flos-aquae,
buoyancy regulation, role of light, carbon dioxide, nitrogen 283
Anoxia,
benthic, Silicoflagellata:*Distephanus speculum*, links, Adriatic Sea, Gulf of Trieste 75
Antarctic,
zooplankton metabolic cold adaptation, comparison, Arctic 619
Antarctica, Lakes Fryxell and Vanda,
inorganic nitrogen, uptake, regeneration 335
Arctic,
zooplankton metabolic cold adaptation, comparison, Antarctic 619
Asterionella formosa,
diatom, physico-chemical control, growth, eutrophic lake 1001
sub-surface maxima, lake stratification, laboratory model 1169
sub-surface maxima, physical, chemical, biological factors, lake stratification 1185
Astrotoma agassizii,
predation on pelagic Copepoda 1315
Australia, South West Coast,
Mysidacea:*Gastrosaccus robusta*, new species 1307
Australia, Tasman Sea,
eddy water, Crustacea: Peracarida distribution 711

Bacteria,
biomass, secondary production, Chile, Concepción Bay 599
environmental effects on ingestion of, Cladocera 1273
exoenzyme production, phytoplankton photosynthesis, relationship, eutrophic lake 223
nutrient cycling, filtered water, The Netherlands, Lake Vechten 119
Bacterioplankton,
phototrophic, sinking speed determination 887
−phytoplankton coupling, influence of zooplankton 625
population dynamics, clearwater lake, humic lake, Sweden 985
Baltic Sea,
Mysis mixta growth/consumption model 971
phytoplankton nitrogen transformations, declining cyanobacteria bloom conditions 1117
Barents Sea,
Thysanoessa inermis development 133
Biscay and the Western Approaches,
Scomber scombrus egg mortality 1297
Brachyura,
Sesarminae, *Metaplax distincta*, zoea, megalopa 633
Brackish water,
picoplankton ultrastructure, Italy 1067
Buoyancy,
regulation, role of light, carbon dioxide, nitrogen, *Anabaena flos-aquae* 283

Calanoida,
Candaciidae, *Candacia bipinnata*, selective feeding on larvaceans 869
Copepoda, *Eodiaptomus japonicus*, development time, Japan, Lake Biwa 1261
Pseudodiaptomus jonesi, description, distribution 873
Calanus finmarchicus,
enzyme activity spatial distribution, Greenland Sea 431
Calanus hyperboreus,
enzyme activity spatial distribution, Greenland Sea 431
Canada, Bay of Fundy,
Amphipoda/Isopoda spatial/temporal distribution, effects of surface currents 419

Canada, British Columbia,
fjords, diatoms flux 503
***Candacia bipinnata*,**
Calanoida:Candaciidae, selective feeding on larvaceans 869
Candaciidae,
Calanoida, *Candacia bipinnata*, selective feeding on larvaceans 869
Carbohydrates,
excretion, diatom, *Chaetoceros affinis* 763
Carbon,
biomass, growth, assimilation, ctenophore: *Mnemiopsis* 535
budget, *Mnemiopsis* growth dynamics model 553
content, phytoplankton 1037
Carbon dioxide,
role of, buoyancy regulation, *Anabaena flos-aquae* 283
***Chaetoceros affinis*,**
diatom, amino acids/carbohydrates excretion 763
Chaetognatha,
distribution, Indian Ocean 185
feeding habits, Japan, Tokyo Bay 615
Chemical fixation,
effects of, optical properties, phytoplankton 15
Chile, Concepción Bay,
autotrophic biomass, seasonal variability 1157
bacteria biomass/secondary production 599
Chlorophyll,
content, phytoplankton 1037
primary production, Copepoda, vertical relationships, Pacific Ocean 243
Chlorophyll *a*,
content, phytoplankton, effects of trophic status, New Zealand lakes 583
Chloropigment,
analysis 1103
Cladocera,
environmental effects on ingestion of bacteria 1273
Leptodora kindti, foraging behaviour, prey escape responses 1075
population dynamics, floodplain lake, Venezuela 317
Clearwater lake,
bacterioplankton population dynamics, Sweden 985
Coastal waters,
phytoplankton composition/abundance, response to eutrophication 1223
Coccolithophores,
pigment, satellite measurements, USA, Southern California Bight 575
Copepoda,
abundance, predators, relationship, The Netherlands 263
Acartia hudsonica, predator-induced vertical migration 1047
Calanoida:*Eodiaptomus japonicus*, development time, Japan, Lake Biwa 1261
Calanoida:*Pseudodiaptomus jonesi*, description, distribution 873
chlorophyll, primary production, vertical relationships, Pacific Ocean 243
cyclopoids, Red Sea 1089
pelagic, *Astrotoma agassizii* predation on 1315
Crustacea,
Mysidacea:*Gnathophausia*, distribution, North Atlantic Ocean 687
Peracarida, distribution, eddy water, Australia, Tasman Sea 711
Ctenophore,
Mnemiopsis, growth dynamics, carbon biomass, growth, assimilation 535
Mnemiopsis, growth dynamics model, carbon budget 553
Cyanobacteria,
bloom, patchiness/collapse, USA, Nevada, Pyramid Lake 925
fluorescence characteristics 353
Cyclopoids,
Copepoda, Red Sea 1089

***Daphnia*,**
coexisting species, instar-dependent mortality rates, The Netherlands, Lake Vechten 487
interference competition, effects of, *Keratella cochlearis* population, UK, Loch Leven 445
Diatom,
Asterionella formosa, physico-chemical control, growth, eutrophic lake 1001
Chaetoceros affinis, amino acids/carbohydrates excretion 763
flux, fjords, Canada, British Columbia 503
resting cells formation, rejuvenation 375
Skeletonema costatum, ammonium metabolism, effect of salinity 297
Dinoflagellata,
Gonyaulax tamarensis, vertical distribution, effects of pycnocline 747
Gyrodinium aureolum, growth/nitrogen assimilation 105
Oxyrrhis marina, phytoplankton grazing, dynamics 391
pigment, satellite measurements, USA, Southern California Bight 575

Distephanus speculum,
Silicoflagellata, benthic anoxia, links, Adriatic Sea, Gulf of Trieste 75

Ecosystem,
structure, water stratification, relationship 1
Egg mortality,
Scomber scombrus, Biscay and the Western Approaches 1297
Enzyme activity,
spatial distribution, *Calanus finmarchicus*, *Calanus hyperboreus*, Greenland Sea 431
Eodiaptomus japonicus,
Copepoda:Calanoida, development time, Japan, Lake Biwa 1261
Epipelagic plankton,
size structure, oceans 1143
Euphausia pacifica,
net avoidance, USA, Dabob Bay 907
Euphausiid,
Nyctiphanes australis, body shrinkage 595
Eutrophic lake,
diatom, *Asterionella formosa*, physico-chemical control, growth 1001
Eutrophication,
response to phytoplankton composition/abundance, costal waters 1223
Exoenzyme,
production, bacteria, phytoplankton photosynthesis, relationship, eutrophic lake 223

Filters,
effects of, phytoplankton production measurements 49
Floodplain system,
biomass, nutrient sources, phytoplankton biomass, distribution 813
phytoplankton distribution, seasonal changes, effects of hydrology/nutrients 839
Fluorescence,
characteristics, cyanobacteria 353
spectra, algae identification 65
Forest lake,
mesotrophic, PDOC characterization, uptake 463
Freshwater lake,
patterns of zooplankton grazing 1021
plankton seasonal succession, USA, Northeastern Ohio 1321

Gastrosaccus robusta,
Mysidacea, new species, Australia, South West Coast 1307
Glutamate,
glutamine, ratio, N-status biomarker, microalgae 165
Glutamine,
glutamate, ratio, N-status biomarker, microalgae 165
Gnathophausia,
Crustacea:Mysidacea, distribution, North Atlantic Ocean 687
Gonyaulax tamarensis,
Dinoflagellata, vertical distribution, effects of pycnocline 747
Greenland Sea,
Calanus finmarchicus, *Calanus hyperboreus*, enzyme activity spatial distribution 431
Gyrodinium aureolum,
Dinoflagellata, growth/nitrogen assimilation 105

Herring,
larvae, sampling gears, efficiency differences 775
Humic lake,
bacterioplankton population dynamics, Sweden 985
zooplankton nutritive status/production 649

Indian Ocean,
Chaetognatha distribution 185
Isopoda,
spatial/temporal distribution, effects of surface currents, Canada, Bay of Fundy 419
Italy,
brackish water, picoplankton ultrastructure 1067

Japan, Lake Biwa,
Copepoda:Calanoida:*Eodiaptomus japonicus* development time 1261
Japan, Tokyo Bay,
Chaetognatha feeding habits 615

Keratella cochlearis,
population, effects of *Daphnia* interference competition, UK, Loch Leven 445

Larvaceans,
selective feeding on, Calanoida:Candaciidae, *Candacia bipinnata* 869
Lebanon,
Poecilostomatoidea:*Oncaea* spp., taxonomy, ecology 949
Leptodora kindti,
Cladocera, foraging behaviour, prey escape responses 1075

Light,
role of, buoyancy regulation,
Anabaena flos-aquae 283
Lipids,
during starvation/feeding,
Acanthodiaptomus denticornis 1201

Macroplankton,
distribution, Mediterranean Sea,
Ligurian Sea 665
Mediterranean Sea, eastern,
tintinnids distribution, ecology 203
Mediterranean Sea, Ligurian Sea,
macroplankton/micronekton distribution 665
Megalopa,
Brachyura:Sesarminae,
Metaplax distincta 633
***Mesodinium rubrum*,**
annual cycle, USA, Gulf of Maine 193
***Metaplax distincta*,**
Brachyura:Sesarminae, zoea, megalopa 633
Microalgae,
glutamine:glutamate ratio,
N-status biomarker 165
inorganic nitrogen uptake, linear model 521
***Microcystis aeruginosa*,**
population dynamics, diurnal mixed layers,
South Africa, Hartbeespoort Dam 25
Micronekton,
distribution, Mediterranean Sea,
Ligurian Sea 665
***Mnemiopsis*,**
ctenophore, growth dynamics,
carbon biomass, growth, assimilation 535
ctenophore, growth dynamics model,
carbon budget 553
Mysidacea,
Gastrosaccus robusta, new species,
Australia, South West Coast 1307
Gnathophausia, distribution,
North Atlantic Ocean 687
***Mysis mixta*,**
growth/consumption model, Baltic Sea 971
***Mysis relicta*,**
vertical/horizontal distribution, Norway,
Lake Snåsavatnet 729

N-status,
biomarker, glutamine:glutamate ratio,
microalgae 165
Nanoplankton,
concentration, flow filtration 1213
New Zealand,
lakes, phytoplankton chlorophyll
a content, effects of
trophic status 583
New Zealand, Otago shelf waters,
seabirds aggregation/zooplankton
prey correlation 361
Nitrate,
photosynthetic response,
Skeletonema costatum 141
Nitrogen,
assimilation, *Gyrodinium aureolum*,
Dinoflagellata 105
inorganic, uptake, linear model,
microalgae 521
inorganic, uptake, regeneration,
Antarctica, Lakes Fryxell
and Van[illegible] 335
role of, buoyancy regulation,
Anabaena flos-aquae 283
transformations, phytoplankton,
declining cyanobacteria bloom conditions,
Baltic Sea 1117
North Atlantic Ocean,
Crustacea:Mysidacea:*Gnathophausia*,
distribution 687
Norway, Boknafjorden,
phytoplankton primary production 785
Norway, Lake Snåsavatnet,
Mysis relicta vertical/horizontal
distribution 729
Norway South,
fjord, zooplankton composition,
effects of water exchange 85
Norway, West Spitzbergen,
phytoplankton seasonal primary
production 1245
***Nyctiphanes australis*,**
euphausiid, body shrinkage 595

***Oncaea* spp.,**
Poecilostomatoidea, taxonomy, ecology,
Lebanon 949
Optical properties,
effects of chemical fixation, phytoplankton 15
***Oxyrrhis marina*,**
Dinoflagellata, phytoplankton grazing,
dynamics 391

Pacific Ocean,
chlorophyll, primary production, Copepoda,
vertical relationships 243
PDOC,
characterization, uptake,
mesotrophic forest lake 463
Pelagic organic matter,
distribution, levels, Adriatic Sea 1129
Peracarida,
Crustacea, distribution, eddy water,
Australia, Tasman Sea 711

Phosphate,
photosynthetic response,
Skeletonema costatum 141
Photosynthesis,
phytoplankton, bacteria exoenzyme
production, relationship, eutrophic lake 223
Photosynthetic response,
ammonium, nitrate, phosphate,
Skeletonema costatum 141
Phytoplankton,
–bacterioplankton coupling,
influence of zooplankton 625
carbon/chlorophyll content 1037
chlorophyll *a* content, effects of trophic status,
New Zealand lakes 583
composition/abundance, response to
eutrophication, coastal waters 1223
distribution, biomass, nutrient sources,
hydrology, floodplain system 813
distribution, seasonal changes,
effects of hydrology/nutrients,
floodplain system 839
grazing, Dinoflagellata:*Oxyrrhis marina*,
dynamics 391
nitrogen transformations, declining
cyanobacteria bloom conditions,
Baltic Sea 1117
nutrient cycling, filtered water,
The Netherlands, Lake Vechten 119
optical properties, effects of
chemical fixation 15
photosynthesis, bacteria exoenzyme
production, relationship, eutrophic lake 223
primary production, Norway,
Boknafjorden 785
production measurements, effects of filters 49
seasonal primary production, Norway,
West Spitzbergen 1245
temperature-independent growth 605
Picoplankton,
concentration, flow filtration 1213
ultrastructure, brackish water, Italy 1067
Poecilostomatoidea,
Oncaea spp., taxonomy, ecology,
Lebanon 949
Primary production,
chlorophyll, Copepoda, vertical relationships,
Pacific Ocean 243
internal waves, effects of 409
seasonal, phytoplankton, Norway,
West Spitzbergen 1245
***Protogonyaulax tamarensis*,**
alkaline phosphatase activity 879
Protozoa,
nutrient cycling, filtered water,
The Netherlands, Lake Vechten 119
***Pseudodiaptomus jonesi*,**
Copepoda:Calanoida, description,
distribution 873

Red Sea,
Copepoda cyclopoids 1089
Relative speed,
predator, prey, model 415
Resting cells,
formation, rejuvenation, diatoms 375

***Scomber scombrus*,**
egg mortality, Biscay and the
Western Approaches 1297
Seabirds,
aggregation, correlation, zooplankton prey,
New Zealand, Otago shelf waters 361
Secondary production,
bacteria, Chile, Concepción Bay 599
Sesarminae,
Brachyura, *Metaplax distincta*, zoea,
megalopa 633
Silicoflagellata,
Distephanus speculum, benthic anoxia,
links, Adriatic Sea, Gulf of Trieste 75
***Skeletonema costatum*,**
diatom, ammonium metabolism,
effect of salinity 297
photosynthetic response, ammonium,
nitrate, phosphate 141
South Africa, Hartbeespoort Dam,
Microcystis aeruginosa population dynamics,
diurnal mixed layers 25
Sweden,
clearwater lake, humic lake, bacterioplankton
population dynamics 985

The Netherlands,
Copepoda abundance, predators,
relationship 263
The Netherlands, Lake Vechten,
Daphnia coexisting species,
instar-dependent mortality rates 487
filtered water, nutrient cycling, phytoplankton,
bacteria, protozoa 119
***Thysanoessa inermis*,**
development, Barents Sea 133
Tintinnids,
distribution, ecology, Mediterranean Sea,
eastern 203

UK, Loch Leven,
Keratella cochlearis population, effects of
Daphnia interference competition 445
USA, Dabob Bay,
Euphausia pacifica net avoidance 907

USA, Gulf of Maine,
Mesodinium rubrum annual cycle 193
USA, Nevada, Pyramid Lake,
cyanobacteria bloom patchiness/collapse 925
USA, Northeastern Ohio,
freshwater lake, plankton
seasonal succession 1321
USA, Southern California Bight,
coccolithophores, Dinoflagellata, pigment,
satellite measurements 575

Venezuela,
floodplain lake, Cladocera
population dynamics 317

Zoea,
Brachyura:Sesarminae, *Metaplax distincta* 633
Zooplankton,
composition, effects of water exchange,
fjord, Norway, South 85
distribution, enclosed/unenclosed water 173
distributions, comparison of,
sampling techniques 703
influence of, phytoplankton–bacterioplankton
coupling 625
metabolic cold adaptation comparison,
Antarctic, Arctic 619
nutritive status, production, humic lake 649
patterns of grazing, freshwater lake 1021
preservation, measurement 1109
prey, correlation, seabirds aggregation,
New Zealand, Otago shelf waters 361